

MASTER OF SCIENCE IN MANAGEMENT

THE DEFENSE FINANCIAL MANAGER: AN ASSESSMENT OF KNOWLEDGE REQUIREMENTS AND THE NAVAL POSTGRADUATE SCHOOL FINANCIAL MANAGEMENT GRADUATE CURRICULUM

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Recognizing the need to improve the capabilities of the Department of Defense (DoD) financial management workforce, the American Society of Military Comptrollers (ASMC) has developed an exam based certification program for DoD financial management personnel, the Certified Defense Financial Manager (CDFM) Program. The purpose of this thesis is to (1) assess how well the Naval Postgraduate School Financial Management curriculum covers the body of knowledge requisite to pass the CDFM examination; (2) recommend options to improve coverage; and (3) develop a student reference guide to aid students in preparing for the exam. The core competencies, knowledge elements, and specific topics that comprise the CDFM body of knowledge were identified through an extensive literature review. Key NPS faculty members were surveyed to assess the level of coverage the Financial Management curriculum provided. The results of the assessment show that the Financial Management curriculum covers approximately 80% of the knowledge requirements in varying degrees, but doesn't provide sufficient coverage of enough of them to fully prepare graduating students to pass the CDFM exam. Several options are proposed to improve the level of coverage including addition of an elective course and providing resources for self-study.

DoD KEY TECHNOLOGY AREA: Other (Financial Management)

KEYWORDS: Certification, Financial Management Curriculum, Certified Defense Financial Manager, CDFM

DEVELOPMENT OF A RETENTION MODELING MODULE FOR THE NAVY PERSONNEL DATA WAREHOUSE (PERSMART)

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The Navy Bureau of Personnel is developing a data warehouse (PERSMART) to support retention and manpower planning. The purpose of this thesis is to investigate data and models that could be used to

implement a retention-modeling module in PERSMART. The first part of the thesis surveys the literature on military and civilian retention and the link between compensation and retention decisions. The literature review is used to identify alternative data needed to support retention-modeling efforts. The thesis then identifies sources for the needed data elements. The second part of the thesis specifies and estimates a first term retention model for Navy enlisted personnel. The model focuses on the impact of the Selected Re-enlistment Bonus (SRB) and measures the bonus at the NEC and aggregate rating levels. The results suggest that higher SRB multiples are associated with higher re-enlistment rates. A marginal effect of 0.0194 for NEC-Specific SRB implies that for two otherwise identical individuals, the probability of reenlistment is +1.9 percentage points higher for the individual receiving a SRB. Alternative SRB measures yielded similar results.

DoD KEY TECHNOLOGY AREAS: Manpower, Personnel, and Training, Other (Compensation)

KEYWORDS: Compensation, Retention, Personnel Planning, Modeling

THE EFFECT OF GRADUATE EDUCATION ON THE RETENTION AND PROMOTION OF MARINE CORPS OFFICERS

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This thesis analyzes the factors associated with retention to the O-5 promotion point and selection for promotion to O-5. In particular, this thesis focuses on the economic returns to graduate education and specifically Naval Postgraduate School (NPS) education. In theory, the payoff to the Marine Corps is the increased productivity of the officer with a graduate degree. This thesis analyzes the differences in retention and promotion rates between officers with and without graduate degrees. Data from the FY1998 through FY2001 lieutenant colonel promotion boards and data for the corresponding accession cohorts, who entered the Marine Corps between FY80 and FY84 are merged with Automated Fitness Report System (AFRS) data. Nonparametric analysis and simple Probit techniques are used to estimate retention and promotion models. The results suggest that, in addition to other factors, graduate degrees from NPS and from sources other than NPS both have a positive effect on the retention and promotion of Marine officers. Several statistical techniques are applied to correct for potential biases due to self selection and sample selection. However, results from these techniques prove sensitive to slight changes in model specification and therefore, are not conclusive.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Marine Corps Officers, Promotion, Retention, Graduate Education, Naval Postgraduate School

AN ANALYSIS OF PERFORMANCE METRICS FOR MEASURING SHIPPING FUNCTIONS AT A DEFENSE DISTRIBUTION DEPOT

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Performance metrics for evaluating the shipping process at a defense distribution center are investigated. Two metrics are considered that the depots have used in the past, (average days delayed and average cycle time), considering the efficacy of both metrics and compare them with a new metric called cut-off time proposed by Gue (2000). Results suggest that the defense distribution centers should implement the

cut-off time metric as a means of aligning depot processes with transportation cycles to improve customer service.

DOD KEY TECHNOLOGY AREA: Other (Logistics)

KEYWORDS: Logistics, Distribution, Defense Distribution Depot, Defense Logistics Agency, Performance Metrics

AN ANALYSIS OF THE FINANCIAL IMPACT OF REDUCING THE MINIMUM SERVICE REQUIREMENT FOR PENSION BENEFITS ELIGIBILITY IN THE SENEGALESE ARMY

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Since 1985, the Senegal Army has been fighting a rebellion in the southern part of the country. Unfortunately, only those soldiers killed while on duty in the area are eligible for survivor benefits regardless if they meet a 15½ -year service requirement or not. While all soldiers who have been assigned to UN's peacekeeping operations or have been assigned to military training abroad have been deemed eligible for these pension benefits, all other soldiers with less than this minimum length of service are ineligible for such benefits.

Therefore the objective of the thesis is to examine the financial impact of expanding the pension eligibility to those who leave the service before the 15½ -year requirement. This thesis estimates the future net cash flow based on data gathered from historic samples.

Using a Monte Carlo Simulation this thesis shows that the current pension system is financially solvent and effective, but remains fragile. Based on the conclusions reached in this thesis, my recommendations are to not accept new entrants under the 15½-year requirement in the current pension system and to take measures to contain the variances of the net cash flows in order to keep the system strong.

DoD KEY TECHNOLOGY AREA: Modeling and Simulation

KEYWORDS: Military Retirement Pension, Retiree's Pension Contributions and Benefits, Survivors' Benefits, Pension System Net Cash Flow

NAVY RECRUITER INCENTIVES AND MOTIVATION:

A SURVEY OF ENLISTED RECRUITERS

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This thesis analyzes factors affecting Navy recruiter motivation to meet mission requirements. Commander, Navy Recruiting Command publishes an annual awards instruction that highlights many awards which recruiters can work toward. Current motivational theory identifies two basic sources of worker motivation, extrinsic and intrinsic rewards. Additionally, civilian sales forces tend to employ tangible benefits, such as cash bonuses and other forms of compensation, to reward productive sales representatives. The question is which of these sources and which of these kinds of awards motivate the Navy's sales force, their recruiters. An online survey solicited the current enlisted recruiting force to determine their attitudes toward incentives. Survey results determined the following: recruiters rank intangible incentives higher than tangibles, a proposed goal sabbatical and proposed cash awards rank highest of all tangible incentives studied, and recruiter attitudes toward incentives vary according to their status (paygrade, whether or not they volunteered for recruiting duty, and if they belong to the Career

Recruiting Force). A positive command climate is determined to be the number one factor in motivating recruiters to meet mission requirements.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel and Training, Other (Recruiting)

KEYWORDS: Navy Recruiting, Recruiter Incentives, Motivation

**NAVY REFUELING OPTIONS IN SOUTHERN CALIFORNIA: AN ANALYSIS OF
ALTERNATIVES IN CASE DEFENSE FUEL SUPPLY POINT AT POINT
LOMA IS NOT AVAILABLE**

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The Defense Fuel Supply Point (DFSP) at Point Loma California provides most of the fuel that the U.S. Navy assets use in the Southern California operating areas; 3,171,000 BBLs total of F-76 and JP-5 in Fiscal Year 2000. If it were disabled or destroyed, it would be vital that all personnel involved understand the numerous alternative methods of getting fuel to the fleet.

This thesis studies the offices and organizations that could be affected by the sudden removal of DFSP Point Loma as a fueling source, and examines the various alternative fueling options and methods. It looks at the options from the background of current fuel transportation methods and the reasons that might make a contingency fueling plan necessary. It discusses what considerations there would be to choosing an alternative, and gives four generic scenarios, walking through the options that might be best for each. The thesis ends with a summary of the findings, some conclusions, and some recommendations for DOD and for further studies.

The research was done through sources at the NPS Library, online, and on site including interviews and searching through files. From all of the information gathered, a number of conclusions can be drawn. The first one is that if DFSP Point Loma is destroyed or disabled that there are definitely other options for getting fuel to the fleet. The second and third conclusions are that the current fueling capabilities in Southern California support the Missions and Visions of MSC and DESC.

DoD KEY TECHNOLOGY AREAS: Materials, Processes, and Structures, Other (Logistics)

KEYWORDS: Refueling, Logistics, Tanker Ships, Replenishment at Sea, Fuel Depots, Pacific Fleet

**FIRST-TERM ENLISTED MALE MARINES' SATISFACTION WITH JOB
CHARACTERISTICS: EVIDENCE FROM THE 1999 USMC
WEB-BASED RETENTION SURVEY**

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The purpose of this thesis was to analyze the job satisfaction of first-term male enlisted Marines. Prior research has shown that job satisfaction is an important variable in the retention decisions of both military and civilian workers. Data were extracted from the 1999 USMC Retention Survey and matched with Marine Corps personnel master files. The sample was restricted to E-2 through E-4. Job satisfaction was investigated by separating the data set by occupational group. Results indicate that over one-third of the respondents are dissatisfied with their job, a majority feel they have to "pick up the load" because the unit is understaffed, and over sixty percent feel their original expectations of the job have not been met. In the comparison of occupational groups, personnel in the combat arms community are significantly more dissatisfied with their job than the other four MOS communities. These findings can provide Marine Corps

leaders with targeted information regarding occupational groups to use in improving job satisfaction and retention.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Job Satisfaction, Retention, Enlisted

**AN ORGANIZATIONAL ANALYSIS OF THE UNITED STATES AIR FORCE PERSONNEL
CENTER AIRMAN ASSIGNMENT MANAGEMENT SYSTEM**

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An analysis of the U. S. Air Force, Assignment Management System (AMS) is presented as an effective model that could be adapted by other services and agencies as a viable system for job matching, assignment and management of personnel assets. The military must compete with the civilian market to staff and man an all-volunteer force. There is a critical need to place more emphasis on career development and quality of life issues created by duty assignments requiring frequent and extended family separations due to overseas assignments.

Conventional personnel management practices leveraged by technological advances in secure data base management and Internet communications provide an opportunity for the military to more effectively and efficiently assign personnel. The Air Force system was chosen as a mature and well-developed model for a more detailed outcomes assessment and evaluation as presented in this study.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Manpower, Personnel, Assignments, Process Re-engineering, Retention

**AN EVALUATION OF COSTS AND BENEFITS OF THE NAVY'S DRUG
PREVENTION POLICIES**

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This thesis evaluates the costs and benefits of the Navy's drug prevention policies. Benefits stem from both deterrence and detection effects of the policies. By using data from the National Household Survey on Drug Abuse, and Department of Defense Survey of Health Related Behavior Among Military Personnel, the existence and magnitude of the deterrence effect is estimated. The gross benefits of the zero tolerance policy are calculated based on the costs avoided by deterring and detecting users. These benefits are compared to the total costs of the drug prevention program, including replacement costs of discharged personnel, and administrative costs. Sensitivity analysis suggests that, under reasonable assumptions about the key parameters, the program does not generate positive net benefits. It is recommended that an analysis of the cost-effectiveness of a rehabilitation program for positive drug testers be conducted.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Deterrence Effect, Detection Effect, Replacement Costs, Continuation Rates, Zero Tolerance

CASE ANALYSIS OF THE FORT ORD RESTORATION ADVISORY BOARD 1995-1999

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This research analyzes the successful and less successful practices of the Fort Ord Restoration Advisory Board in expediting environmental cleanup at Fort Ord, making former military land available for civilian use. It includes descriptions of base realignment and closure selection criteria, President Clinton's Revitalization Initiative, the Restoration Advisory Board Process, and an extensive literature review of citizen involvement in advisory groups and conflict. Nine semi-structured interviews were conducted with Army representatives, regulatory agency representatives, citizens, and other individuals that were either members of or associated with the Fort Ord Restoration Advisory Board. This paper draws conclusions and offers recommendations about how challenges encountered by the Fort Ord Restoration Advisory Board can be avoided at other military installations that either have existing advisory boards or are required to form boards due to future Base Realignment and Closure actions.

DoD KEY TECHNOLOGY AREA: Other (Base Realignment and Closure, Environmental Cleanup)

KEYWORDS: Shore Installation Management, Base Realignment and Closure, Restoration Advisory Board, Citizen Advisory Group, Conflict, Environmental Cleanup, Fort Ord

AGENT-BASED SIMULATION SYSTEM: A DEMONSTRATION OF THE ADVANTAGES OF AN ELECTRONIC EMPLOYMENT MARKET IN A LARGE MILITARY ORGANIZATION

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The Navy Personnel Command assigns over 100,000 Sailors annually utilizing in excess of 200 Detailers. This process is typically done manually between Sailor and Detailer. Navy Personnel Research Studies and Technology (NPRST), together with NPS, have begun a series of studies to optimize this process through the use of an Agent-Based Employment Market System. To assist in the validation of the Agent-Based System, this thesis seeks to design a simulation program as a demonstration of the possibilities and potential advantages of an Agent-Based Electronic Employment Market. Research includes conducting a review of the current personnel detailing process in the Navy, coding a simulation program, and running various detailing scenarios. The simulation results indicated there are potential advantages of an Agent-Based Employment Market System to detailing in the Navy.

DoD KEY TECHNOLOGY AREAS: Manpower, Personnel, and Training, Modeling and Simulation, Computing and Software

KEYWORDS: Department of the Navy Manpower Distribution System, Manpower Model Simulation

**360-DEGREE FEEDBACK: A POWERFUL TOOL FOR LEADERSHIP DEVELOPMENT
AND PERFORMANCE APPRAISAL**

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Three hundred-sixty degree feedback is a powerful multi-dimensional leadership development tool that draws upon the knowledge of people within a person's own circle of influence: supervisors, peers, and direct reports. It is most widely used for development, yet many organizations also use it for administrative purposes. This thesis examines the efficacy of 360-degree feedback through an in-depth research review that establishes when 360-degree feedback is effective and what conditions enhance or detract from its effectiveness. The thesis explains how 360-degree feedback was developed and examines its rapid growth in popularity. The argument for multi-dimensional performance feedback is then discussed in terms of four factors that have changed the role of leadership as we have moved from the Industrial Age/Cold War to globalization and the Information Age. As leadership's roles change, so must the goals of leadership development. A review of successful organizations reveals that many are using 360-degree feedback for modern leadership development, reinforced by similar systems for administrative performance appraisal. Research on 360-degree feedback reveals effectiveness conditions, design and implementation considerations, and four categories of potential benefits. Large Group Interventions with Appreciative Inquiry for collaborative design/implementation and positive change management also are discussed. The thesis ends with strong recommendations for the use of 360-degree feedback for both Navy leadership development and administrative appraisal.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: 360-Degree Feedback, Leadership, Leadership Development, Performance Appraisal

**AN ANALYSIS OF THE UNITED STATES MARITIME INDUSTRY AND ITS ABILITY TO
MEET NATIONAL SECURITY STRATEGY REQUIREMENTS**

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The mariner pool was not an issue of concern until Operations Desert Shield/Desert Storm brought about the largest fleet activation since the Vietnam Conflict. To meet Ready Reserve Force crewing requirements during the Gulf War, mariners from the Great Lakes and retired mariners ranging up to eighty years of age were mobilized. Additionally, Military Sealift Command had to hire as many as 162 foreign-flag ships to supplement its sealift capabilities. This raised concerns over the mariner pool and its effects on national sealift capabilities in terms of the national defense strategy. However, there is no organization that can state and validate the number of United States merchant mariners.

The objective of this study is to determine if there are enough qualified merchant mariners to meet the crewing requirements brought on by two nearly simultaneous major theater wars without sacrificing manning levels in the commercial fleet. Part of this project also analyzed the maritime industry to determine the causes of the mariner shortage. Although research did not yield the data necessary to determine actual size of the mariner pool, estimates suggest that the number of mariners available is not sufficient to fulfill surge requirements in support of national sealift strategy.

DoD KEY TECHNOLOGY AREA: Other (Sealift)

KEYWORDS: Sealift, Merchant Marine, Maritime Policy, Ready Reserve Force

**STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS ANALYSIS OF
CONSOLIDATED SERVICES AT NAVAL AIR STATION JOINT
RESERVE BASE FORT WORTH**

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This thesis analyzes the consolidation of U.S. Navy, Air Force, and Texas Air National Guard (TANG) support services at Naval Air Station (NAS) Joint Reserve Base (JRB) Fort Worth, Texas. Consolidation literature was reviewed and extensive field interviews were conducted with 11 military and civilian personnel involved in support service consolidation at NAS JRB Fort Worth.

A strengths, weaknesses, opportunities, and threats (SWOT) assessment and interview results yielded the following conclusions: There is a lack of DOD direction concerning guidance and implementation of interservice support; consolidating support functions among the Services increases overall efficiency and improves performance; and cultural differences are evident among the Services, but the differences can be resolved.

Recommendations include increasing the priority of developing and promulgating joint policies and standardizing DOD instructions for generic functions. Additionally, Service leaders should include more interservice operability into their strategic and training plans, and analyze existing and potential cost savings.

DoD KEY TECHNOLOGY AREA: Other (Interservice Support)

KEYWORDS: Military Base Support Operations

**A REVIEW OF SOCIAL SECURITY AND SUPPLEMENTAL SECURITY INCOME
FROM A FEDERAL BUDGET PERSPECTIVE**

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This thesis examines Supplemental Security Income (SSI) starting from its inception in 1972, and identifies and evaluates the major changes that have transformed it through its short lifetime. SSI originated in the Social Security Act of 1935, and was later enhanced by the Social Security Act Amendments of 1950. As one of the multitude of entitlement programs constituting the mandatory spending category of the federal budget, SSI plays an important role in the lives of many individuals. Of specific interest are the changes brought about by the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 and the Balanced Budget Act (BBA) of 1997.

A focused review of pertinent literature, Social Security and SSI legislation, and an analysis of the effects of welfare reform illustrate how after federalization in 1972, SSI experienced rapid growth throughout the decades of the 1980s and 1990s. In particular, SSI experienced a significant increase in growth from 1985 to 1990, which appeared to have been contained by the PRWORA of 1996. However, the BBA of 1997 allowed SSI to quickly resume its historical pattern of growth.

DoD KEY TECHNOLOGY AREA: Other (Federal Budget)

KEYWORDS: Social Security, Social Security Trust Funds, Supplemental Security Income, Mandatory Spending, The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, The Balanced Budget Act of 1997

DEFENSE SPENDING DATABASES FOR COUNTRIES IN THE ASIA-PACIFIC REGION: AN ANALYSIS AND COMPARISON

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The purpose of this research was to identify and analyze a select number of unclassified databases that cover defense spending and other defense related criteria for countries in the Asia-Pacific region. A thorough search was first conducted for databases with defense information on countries in the Asia-Pacific region. Initial sorting criteria were identified and applied to create a list of databases to be evaluated in detail. These databases were then evaluated and discussed in detail using additional evaluation criteria that were developed. Conclusions were then drawn, and recommendations made, for the best databases to be used by defense and policy analysts in the future. This research recommended the following databases. For defense spending information, the Australian Defense Intelligence Organization's Defense Economic Trends in the Asia-Pacific 1999 was recommended. For defense capabilities information, the International Strategic Studies Association's Defense and Foreign Affairs Handbook was recommended. For arms sales and transfers information, the SIPRI Yearbook was recommended for use. The best all around defense database on the Asia-Pacific region was judged to be the International Institute of Strategic Studies' Military Balance 2000/2001.

DoD KEY TECHNOLOGY AREA: Other (Public Policy and Budgeting)

KEYWORDS: Defense Spending

APPLYING TWO-SIDED MATCHING PROCESSES TO THE UNITED STATES NAVY ENLISTED ASSIGNMENT PROCESS

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The existing Navy detailing process is characterized by bilateral negotiations between detailers and sailors. In this process, detailers match sailors with billets while attempting to satisfy, to the maximum extent possible, the needs and preferences of each group. The current process requires the effort of approximately 240 detailers and results in assignments that do not always satisfy the competing preferences of sailors and billets.

This thesis explores various two-sided matching processes as currently used in some markets, as possible alternative means of assigning sailors. The similarities and differences between existing two-sided matching processes and the Navy's assignment process are examined. Various modifications to the assignment process and the matching algorithm are proposed to enable the matching algorithm to be suitably applied to the Navy's situation.

It is found that the application of a two-sided matching process would significantly reduce the number of detailers required, while simultaneously improving the overall quality of assignments. Furthermore, to enhance the process, a means of including incentives to encourage sailors to accept difficult to fill positions is provided.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Detailing, Enlisted Personnel, Assignment, JASS, Two-Sided Matching, Marriage Problem, Assignment Incentives

THE OPERATION JOINT ENDEAVOR DEPLOYMENT: TRANSPORTATION LESSONS LEARNED AND IMPACT ON SUBSEQUENT OPERATIONS

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Through the 1990s, the United States military, specifically the Army, has decreased its forward presence around the world. Instead, we have become a “force projection” Army, relying on deployments to move our forces into a theater of operations. This increased reliance on the art of deploying has made the study of previous deployments critical. This study is also important since military strategists expect U.S. forces to be involved in an increasing number of regional contingency operations of the sort conducted in Bosnia from late 1995 until the present. The success of such large-scale operational missions hinges on the Army’s ability to efficiently deploy its forces. Planners of future missions therefore would greatly benefit from the study of the deployment to Bosnia in support of Operation Joint Endeavor.

This thesis provides a thorough chronology of events surrounding the deployment of Army forces from Germany through Hungary and Croatia into Bosnia. The work further analyzes related transportation and logistical issues and problems in order to identify lessons learned from the mission.

Once the lessons learned are identified, the study relates how those lessons learned have influenced deployment doctrine and deployments to subsequent operations.

DoD KEY TECHNOLOGY AREA: Other (Deployment Systems)

KEYWORDS: Operation Joint Endeavor, Deployment, Bosnia, Transportation

MEDICAL SERVICE CORPS: JUNIOR OFFICER AND RECENT RETIREE STAY/LEAVE DECISIONS

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This thesis examines stay/leave decisions of Medical Service Corps (MSC) Officers in pay grades O-1 through O-4. Reasons why they choose to stay or leave the Navy and their attitudes toward continued service are identified and explored. Since few studies have been conducted on turnover intent in officers within the Navy Medical Department, previous studies, theories, and influences on stay/leave decisions in Department of Defense officers are examined and compared with actual perceptions of MSC officers obtained through interviews. Thirty active duty and eight recently retired Medical Service Corps junior officers stationed on the East and West coasts were interviewed. Results indicated that active duty MSC officers’ stay decisions are primarily influenced by the following factors: pay and benefits; job satisfaction; spouse and/or family; graduate education opportunities; and military leadership. The strongest influences are: pay and benefits and job satisfaction. Recently retired MSC officers stated that the following factors mainly influenced their decision to leave: the booming economy (job availability); permanent change of station (PCS) moves; disconnection with leadership; the changing military; and being retirement eligible. Recommendations for further study are offered to aid recruitment and retention of Medical Service Corps officers.

DoD KEY TECHNOLOGY AREA: Command, Control, and Communications

KEYWORDS: Attrition, Retention, Retirement, Medical Services Corps, Stay/Leave Decisions, Turnover

ANALYSIS OF THE SELECTION PROCESS FOR EXECUTIVE MANAGEMENT POSITIONS AT NAVY MEDICAL/DENTAL TREATMENT FACILITIES

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This study describes, analyzes and compares Navy Medicine's command screening process. Organizational structure and behavioral models, and public policy models are used to explain the process and to provide the theoretical framework for the study. Twenty-one semi-structured interviews were conducted with senior stakeholders involved in the process. A written questionnaire (Likert-scaled and closed-ranking) was developed to assess the knowledge and perceptions of Navy Medicine Captains (n=146). Statistically significant survey responses were obtained. Results showed the following: the overall process is perceived to be *fair* and *objective* and meets the needs of Navy Medicine; *self-exemption* from selection is an *acceptable* part of the process and *fits* the organization's highly professional nature; and the "best record" is selected. Candidates' primary reasons for seeking command assignments were to improve Navy Medicine, obtain increased responsibility, and personal satisfaction. Recommendations include: continue improving communications between decision makers and prospective candidates; prepare, groom and select officers earlier in the process; and improve fitness report accuracy in terms of describing actual performance and potential for command.

DoD KEY TECHNOLOGY AREAS: Manpower, Personnel, and Training, Other (Healthcare), Command, Control, and Communications

KEYWORDS: Manpower Policy Issues/Special Studies, and Leadership

UNDERSTANDING HOW PROGRAM MANAGERS SUCCESSFULLY MANAGE INNOVATION IN MAJOR DEFENSE ACQUISITION PROGRAMS: AN EXPLORATORY STUDY

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Senior DoD leadership, under the banner of acquisition reform, seek change in the acquisition process and within acquisition programs to reduce program cycle-time and total ownership cost. Key to achieving acquisition reform is the program manager (PM). PMs are tasked with the overall responsibility for their program's cost schedule and performance goals. The DoD 5000 Series encourages PMs to, "continually search for innovative practices that reduce cycle-time, reduce cost, and encourage team-work," yet little is contained in the DoD 5000 Series or any other acquisition documents to assist the PM in understanding or achieving innovation. In this exploratory study, the author chose five previous PMs known for successful innovation and interviewed them about their innovations. In an effort to aid future PMs, interview data are compared and analyzed to produce preliminary acquisition innovation "best practices."

DoD KEY TECHNOLOGY AREA: Other (Acquisition)

KEYWORDS: Innovation, Public Entrepreneur, Acquisition Reform, Program Management

A COST-BENEFIT ANALYSIS OF THE REQUIREMENT THAT STUDENTS COMPLETE A THESIS AT THE NAVAL POSTGRADUATE SCHOOL

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This thesis identifies and compares the benefits and costs of the policy requiring master's degree candidates at NPS to complete a thesis. It uses fiscal year 2000 data. The goal is to evaluate the existing policy to determine if the economic benefit of requiring a thesis is greater than the economic cost.

The direct benefit of the thesis requirement is the increased productivity of officers due to having completed a thesis. Indirect benefits are found in the valuable research provided by many theses to the DoD. The most prominent cost of the thesis requirement is the opportunity cost of the student's time necessary to stay at NPS, and therefore out of the Fleet, in order to write a thesis.

This thesis estimates that the costs of the thesis requirement were approximately \$19.8 million in FY2000. The indirect benefits of research completed by thesis students were between \$8.3 million and \$18.4 million. The direct benefits, in terms of its educational value, could not be quantified. Therefore, this report recommends that, until the direct benefits can be accurately quantified and monetized, the current requirement for thesis work remain as a condition for graduation from NPS.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Training and Education, Manpower Policy, Cost-Benefit Analysis

CONCEPT EXPLORATION FOR A FUTURE FRIGATE/DESTROYER SIZE WARSHIP PLATFORM

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The purpose of this thesis is to make a clean sheet of paper approach to develop a platform for a future frigate/destroyer size warship based on the operational requirements in the context of future crisis management and constrained resources. The envisioned timeframe is the beginning of the next decade, i.e. 2010 +.

Basic operational requirements regarding the bare warship platform will be weighted and discussed. The study is concentrating on the hull and propulsion configuration to support the derived operational needs. All weapons and control systems will be handled as interchangeable modules, hence only spaces and interfaces will be discussed in this thesis. Special emphasis is given to Total Ownership Costs and the risk from incorporating not yet introduced technologies.

In addition to the classical monohull approach, Catamaran, Trimaran, SWATH and the O'Neill hull form configurations will be investigated as well. In comparison to the Combined Diesel and Gas Turbine (CODAG) and Combined Diesel or Gas Turbine (CODOG) propulsion; Diesel Electric, Gas Turbine Electric and possible combinations of these propulsion concepts will be evaluated.

DoD KEY TECHNOLOGY AREA: Surface/Under Surface Vehicles - Ships and Watercraft

KEYWORDS: Navy, Future Platforms, Frigate, Destroyer, Hull Forms, O'Neill Hull Form, Power Generation, Propulsion, Modularity, Requirements Analysis, Total Ownership Cost

RECRUITING THE NEXT GENERATION: A STUDY OF ATTITUDES, VALUES, AND BELIEFS

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This study examines the attitudes, values, and beliefs of teenagers regarding military service. Specifically, the study looks at generational theory, the characteristics and views of the so-called “Millennial” generation, factors that influence attitudes toward military service, and recruiting strategies used by the Navy and Marine Corps. The study identifies the uniqueness of the next generation of youth, or Millennials, because of the interconnected relationship of five forces of influence: “baby boomer” parents, education, the new economy, technology, and the media. Information on youth attitudes was collected through 36 focus groups, including 677 teenagers at nine high schools in six states. Data obtained from the focus groups reveal common trends across schools and states: teenagers exhibit relatively little knowledge or understanding of the military; higher education is the military’s chief competitor for recruits; and the dissuaders of military service are far stronger than the persuaders of service (due largely to misperceptions and ignorance). Recommendations to improve recruiting are offered, particularly the need to better inform teens about the realities of military service. Efforts toward this end should enhance long-term military recruiting efforts.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Millennials, Generation Y, Military Recruiting, Youth Attitudes

ORGANIZATIONAL CHANGE: A STUDY OF THE INTEGRATED CUSTOMER SUPPORT SYSTEM AT UNITED STATES TRANSPORTATION COMMAND

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This thesis examines the types of organizational change needed at United States Transportation Command to successfully implement the Integrated Customer Support (ICS) System, a Customer Relationship Management solution. This strategic objective to integrate ICS into the Defense Transportation System working environment is an attempt to provide immediate and complete responsiveness to external customer needs.

Based upon interviews with Transportation Specialists, areas for change and resistance were identified using the open system model framework. The system elements that need to be aligned in conjunction with the implementation of the Integrated Customer Support system include inputs, goals and strategies, and behavior and processes. ICS is not just a software program and if implemented as a stand-alone technology, unrelated to other business processes, it will have disastrous results.

More effective communication is needed from the top down throughout the Defense Transportation System so ICS users will be committed to system use and understand the behaviors that are expected of them. New measurement and feedback systems to monitor the performance of the Transportation Specialists need to be established. Additionally, to sustain commitment, the proper rewards and incentives need to be institutionalized at the command.

DoD KEY TECHNOLOGY AREAS: Human System Interface, Computing and Software

KEYWORDS: Organizational Change, Customer Service, Customer Relationship Management

MOBILE DENTAL UNITS AT THE DECKPLATE

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The concept of bringing dental care to the active duty member can be traced back as far as World War I. More than 80 years later, this still holds true. Today, Mobile Dental Units (MDU) seek out the patient, saving hundreds and thousands of manhours which would otherwise be consumed by patients traveling to a point where their needs could be met. The goal of this research project is to determine the optimal number of MDUs to meet the demands of the force they support. The site chosen for this analysis was Naval Dental Center, Southwest, in San Diego, California. This command was chosen because it is the largest dental command within Navy medicine; it has a fleet of MDUs, four of which are used to service local squadrons, Fleet Marine Force units and approximately 30 ships of the Pacific Fleet; and it is close to the Naval Postgraduate School.

In answering this question, a Cost Benefit Analysis and Cost Effectiveness Analysis were conducted, looking at fourteen months of MDU workload. The Cost Benefit Analysis showed a savings over ten years between \$467,409 and \$837,754 per MDU. Five metrics were created to determine cost effectiveness. This analysis identified areas for additional potential savings, ultimately saving DoD more money and making the MDUs more productive. Considering the implications of both the cost benefit and cost effectiveness analysis, the optimal number of MDUs for Naval Dental Clinic Southwest (NDCSW) is four.

Although manhour savings is a key determinant in using these valuable assets, these vehicles more importantly improve the dental health of our operational forces, increasing Operational Dental Readiness and improving our military's overall state of Operational Readiness. More importantly, these mobile units assist the Dental Corps and BUMED with the ultimate goal of ensuring, "Dentally Healthy Sailors and Marines."

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Utilization, Requirements Determination, Special Studies

DESIGNING ECONOMICS EXPERIMENTS TO DEMONSTRATE THE ADVANTAGES OF AN ELECTRONIC EMPLOYMENT MARKET IN A LARGE MILITARY ORGANIZATION

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The Navy detailing process is complicated and detailers spend many hours trying to assign sailors to jobs. There are many factors to be considered for each job assignment: sailors' preferences, commands' requirements and the numerous policies that affect both sailors and commands, manning priority levels, etc. Often this process is fraught with subjectivities, as each resultant job assignment will vary, depending on the detailer making the assignment. It is therefore timely to explore another way of doing business: a two-sided matching process that considers sailors' preferences and commands' requirements and assigns sailors to jobs in an equitable and fair manner. This new process is better able to cope with the complexities of job detailing and other additional information requirements. This thesis compares the differences between the current detailing systems and a two-sided matching process, and presents the advantages of adopting the latter. This new way of doing business brings about major benefits for large organizations such as the U.S. Navy.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

MANAGEMENT

KEYWORDS: Detailing, Enlisted Personnel, Assignment, Jass, Two-Sided Matching

